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EFFECT OF MOBILE BANKING SERVICE QUALITY ON CUSTOMER SATISFACTION IN FIRST BANK OF NIGERIA PLC, MAIDUGURI, BORNO STATE

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Abstract

The study investigates the effects of mobile banking on customer satisfaction; the study adopted a descriptive research design on a sample size of 389 respondents who were selected through purposive sampling from a target population of First Bank of Nigeria (FBN) customers in Maiduguri, Borno state. The data was collected through the administration of questionnaires using a sample size of 384 First Bank customers by the aid of Statistical Package of Social Scientists Program (SPSS) V25. The results indicated that security, reliability, ease of use and assurance were all positively correlated and significant at 1% level. Additionally, the regression analysis also indicated that all the variables were significant at 5% levels. Based on the findings the study concludes that a majority of all those using FBN mobile banking services at the moment were satisfied that indeed it was secure, easy to use, and reliable with high assurance. The study recommends that banks in its provision of mobile banking services should make huge efforts towards building trust with customers.

Keywords: Mobile Banking, Service Quality, Customer Satisfaction, Borno

1. Introduction

Customer satisfaction denotes the degree to which customers are pleased with a product, service or brand experience offered by a financial services provider (Akıl & Ungan, 2022; Uwalaka & Eze, 2020). Customer satisfaction reflects the customer's perception of whether their expectations were met or exceeded in terms of quality, price, convenience, customer service, and other factors. It is a metric that reflects how well a bank is meeting the needs and expectations of its customers. Businesses try to attain excellent levels of customer satisfaction because it allows them to improve and modify their products and services to meet the changing needs of

customers. Furthermore, satisfied customers are more disposed to make purchases again and again and even recommend the brand to others, thereby boosting the company's revenue and growth. Conversely, low levels of customer satisfaction can result in negative reviews, lost business, and damage to a company's reputation (Sulaiman, Muhammad, Muhammad, & Sabiu, 2021).

Universally, mobile banking (m-banking) is a type of electronic banking that has placed digital banking services a click away from bank customer fingertips. M-banking allows customers to access banking services on their mobile phones or other mobile devices. It provides customers with a convenient and secure way to access their bank accounts, transfer money, pay bills, and perform other financial transactions from anywhere and at any time (Ewanlen & Madumere, 2019; Shankar, Datta, Jebarajakirthy, & Mukherjee, 2020; Uwalaka & Eze, 2020). It is a convenient and secure way for customers to access their bank accounts, and make transactions from any location and at any time. The m-banking platform is accessible through mobile applications which bank customers download and install on their mobile devices. Thus, customers only require internet access to make use of the bank services anytime, anywhere without visiting bank branches (Adaramola & Kolapo, 2019).

Moreover, in the global banking sector, the application of digital technology has engineered a seismic shift from the traditional way banking services are offered. The usual conventional way of visiting banking halls for banking services has gradually changed to an online system where electronic banking services are readily available to customers at all times of the day. Many banks have shifted their emphasis to providing quality information and services to meet customers' sophisticated needs. It is argued that better service quality can lead to higher market share and better returns and result in lower costs and higher profit margins (Fadaka & Azeez, 2020; Ramya, Kowsalya, & Dharanipriya, 2019; Rashid & Rokade, 2019).

2. Literature Review

2.1 Conceptual Review

2.1.1 Customer and Customer Satisfaction

Customers are individuals or organizations that purchase or consume goods, products or services offered by businesses. The term customer can also refer to anyone who has an interest in a business or organization and can influence its success. According to Kotler, Armstrong, and Opresnik (2021), a customer is "someone who buys goods or services from a company, especially regularly". From the perspective of this study, a customer is an individual or an organization that engages in a banking relationship with a financial institution by utilizing its products and services, such as deposit accounts, loans, credit cards, and investment opportunities.

Similarly, customer satisfaction refers to the overall feeling of contentment or fulfillment that a customer experiences after using a product or service. In the context of banking services, customer satisfaction refers to the degree to which customers feel happy or pleased with the quality of service provided by their bank (Bungatang & Reynel, 2021; Rashid & Rokade, 2019; Uchechukwu & Stella, 2019)

The characteristics of customer satisfaction may differ depending on the nature of the service (mobile banking vs countertop banking) and its quality. For instance, customers who use mobile banking services may value convenience more than customers who use countertop banking services. Similarly, customers who use high-quality banking services may be more satisfied than customers who use low-quality banking services.

2.1.2. Mobile Banking

Mobile banking (m-banking) refers to the mode of interaction between a customer and a bank, through a mobile device to access banking and financial services offered by banks. This interaction emphasizes the exchange of data and enables customers to check their bank account balance, conduct online transactions, transfer funds, pay bills, etc., without visiting bank. Generally, the use of mbanking requires the customer to complete several steps to enroll and activate the service. Customers need to download the bank's m-banking application from the 1bank's site or app store. The customer then creates an online account by providing personal data and account information, choose a username and password, and finally setting up a secret PIN and other security preferences. The PIN is used to authenticate each transaction the customers make. After the bank verifies the customer's credentials, they become a registered user and can utilize the mobile app to perform a wide range of financial transactions. These transactions include online shopping, bill payments for utilities, checking account information, transferring funds, accessing forex-related services, and booking tickets (Agwu & Carter, 2014; Barnes & Corbitt, 2003).

Interestingly, the first applications of mbanking were performed using SMS in Finland. As early as 1992 customers of Merita Nordbanken were able to make bill payments and check account

balances using a mobile phone (based on GSM – Global Standard for Mobile networks). However, with the introduction of the mobile web and smartphones with wireless access protocol (WAP) in 1999, banks in Europe started offering m-banking platforms to their account holders. By 2010 the Android and IOS mobile were developed by Google and Apple which, coupled with emergence of webbased technologies and standards, enabled mbanking to expand to global markets (Barnes & Corbitt, 2003). This enabled banks to incorporate advanced features in their mobile applications. The enhanced functionality of m-banking apps was found functional and accessible by customers who began to use them. Over time, m-banking became ubiquitous and have become the global norm.

2.1.3. Relationship between Service Quality and Customer Satisfaction

According to Spreng and Mackoy (1996), service quality and customer satisfaction are critical concepts in marketing theory and practice. These concepts have been extensively studied in recent times, demonstrating their importance. Parasuraman established a strong relationship between service quality and customer satisfaction. A perceived higher level of service quality leads to increased customer satisfaction, while a lower level of service results in customer dissatisfaction. Additionally, Parasuraman, Zeithaml, and Berry observe that if the expected quality of service and actual perceived performance is equal or near-equal, customers can be satisfied. However, a negative discrepancy between perceptions and expectations, a "performance-gap," leads to customer dissatisfaction, while a positive discrepancy leads to consumer delight. The relationship expectation, perceived service quality, and customer satisfaction has been investigated in numerous studies (Zeithaml et al., 2002).

Interestingly, this is supported by Rathee and Yadav (2019) who found that the quality of services derived from banking activities influences their usage since customers want a higher degree of convenience and accessibility. Therefore, perceived usefulness, ease of use, reliability, responsiveness, security, and continuous improvement have led to the adoption of internet banking.

2.1.4. Benefits of Mobile Banking

Mobile banking has numerous benefits to various stakeholders such as customers. financial institutions, and governments. These benefits convenience, include accessibility, costeffectiveness, financial inclusion, and economic growth. The benefit to customers, financial institutions and government is further outlined.

According to Agwu and Carter (2014); Barnes and Corbitt (2003) mobile banking benefits to customers include convenience, accessibility, cost-effectiveness, and flexibility. Mobile banking has made it possible for customers to carry out banking transactions at their convenience without having to physically visit the bank. The cost-effectiveness of mobile banking has been attributed to the reduction of transaction costs such as transportation, queuing, and other hidden costs. Accessibility is also a major benefit of mobile banking, as customers can access their accounts anytime, anywhere.

Consequently, financial institutions also benefit from mobile banking through increased efficiency, reduced operational costs, and the ability to serve a wider range of customers. Mobile banking has made it possible for financial institutions to reduce their operational costs by automating some of the banking processes. Additionally, mobile banking has enabled banks to reach a wider range of customers who were previously underserved due to geographical barriers or lack of access to banking services (Agwu & Carter, 2014; Barnes & Corbitt, 2003).

Additionally, governments also benefit from mobile banking through financial inclusion, increased tax compliance, and enhanced economic growth. Mobile banking has been instrumental in promoting financial inclusion by providing access to banking services to the unbanked population. Through mobile banking, governments can also enhance tax compliance by tracking mobile banking transactions. The increased economic growth can be attributed to the increased availability of credit to small and medium enterprises, which have previously been underserved by traditional banking institutions (Agwu & Carter, 2014;, 2017).

2.1.5. Theoretical Framework

Technology acceptance model (TAM) was generally used to study factors influencing use of information systems. It was originally developed from causal action theory (TRA) by Davis (1989). The model focuses on providing explanation of computer technology acceptance and behaviour of users across various computing technologies as end users. According to TAM, perceived usefulness and ease of use are the two core predictors of usage intentions and actual behavioural use of the technology (Davis 1989). Thus, the measurement of perceived ease of use when used as constructs subject to a person's belief with regards to accepting or using a technology rather than an objective reality. matter how useful and relatively easy a technology or application is proven to be, it will likely not be used if a user does not perceive it as such.

Similarly, perceived usefulness is defined by Davis (1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance". This definition takes the assumption of an individual working organization. within an Nevertheless, definition applies to a person's belief of using a system that could enhance his or her personal task or status. Perceived ease of use, refers to "the degree to which a person believes that using a particular system would be free of effort. TAM proposes that perceived usefulness is influenced by perceived ease of use. The limited determinants in the TAM model have led to the development of modified and extended versions which can be flexibly applied to different situations (Venkatesh & Davis, 2000). Several studies have applied TAM and its extended versions to examine the impact of mobile banking service quality on customer satisfaction (Geebren, Jabbar, & Luo, 2021; George & Kumar, 2013).

3. Methodology

3.1 Research Design

The purposive research design was adopted as the main research design. This is because it allows information to be gathered from a sample of respondent by the use of questionnaire.

3.2 Data and Sources

The main source of data for this study was primary data. This primary data was collected from customers of First Bank PLC in the state.

3.3 Method of Data Collection

Five (5) point rated Likert scale questionnaire was used for the study and was stated as follows: Strongly agree (5), Agree (4), Undecided (3), Disagree (2), strongly disagree (1). The questionnaire was self-administered.

3.4 Method of Data Analysis

The data collected will be analysed using descriptive statistics such as frequencies, percentages, mean, and standard deviation. The statistical software package SPSS (Statistical Package for the Social Sciences) V25 will be used to analyse the data. The data was analysed using two statistical techniques. These techniques are multiple regression analysis, and analysis of variance. The use of multiple regression analysis was to help test the conceptual framework or model.

4. Results and Discussion

Table 1: Cronbach's Alpha score for the study dimensions

Dimension	Cronbach's A	pha Score
Assurance	Cronbach's Alpha	N of Items
	.738	3
Reliability	Cronbach's Alpha	N of Items
-	.627	3
Security	Cronbach's Alpha	N of Items
,	.604	3
Ease of Use	Cronbach's Alpha	N of Items
	.689	3
Customer Satisfaction	Cronbach's Alpha	N of Items
	.662	4

Source: SPSS Version 25

The Cronbach coefficient of alpha varies from 0 to 1 and the value of 0.5 or less generally indicates

unsatisfactory internal reliability of data (Tavakol & Dennick, 2011). Scales with coefficient alpha between 0.6 and 0.7 indicate are consistent, reliable and acceptable.

Table 2: Mean and standard deviation of respondents

	N	Mean	Std. Deviation
Assurance	389	4.5236	.50578
Ease of Use	389	4.5013	.47601
Security	389	4.461	.48574
Reliability	389	4.4602	.48034
Valid N	389		
(listwise)			

Furthermore, all m-banking service quality dimensions presented in Table 2 shows that all have an effect on customer satisfaction. The service quality dimensions of Assurance, Ease of Use, Security and Reliability all have mean values 4.52, 4.5, 4.46 and 4.46 respectively. This implies that they play an influential role on m-banking service quality which, in turn will have an effect on mbanking customer satisfaction. Hence, we can assume that all the explanatory variables play an important role in determining customer satisfaction with the quality of m-banking service provided by FBN.

Source: SPSS Version 25

Table 3: Correlation between Dependent and Independent variables

			Customer Satisfaction	Security	Ease of Use	Reliability	Assurance
	Customer	Correlation Coefficient	1.000	.490*	.746*	.532*	.528*
	Satisfaction	Sig. (2-tailed)		.000	.000	.000	.000
		N	389	389	389	389	389
	Security	Correlation Coefficient	.490"	1.000	.566*	.516*	.746*
		Sig. (2-tailed)	.000		.000	.000	.000
		N	389	389	389	389	389
Spearman's	Ease of Use	Correlation Coefficient	.746"	.566*	1.000	.485*	.627*
rho		Sig. (2-tailed)	.000	.000		.000	.000
		N	389	389	389	389	389
	Reliability	Correlation Coefficient	.532*	.516*	.485*	1.000	.386*
		Sig. (2-tailed)	.000	.000	.000		.000
		N	389	389	389	389	389
	Assurance	Correlation Coefficient	.528*	.746*	.627*	.386*	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	
		N	389	389	389	389	389

Source: SPSS Version 22

The values of Spearman's rho range between -1 and +1. A correlation coefficient of -1 indicates a perfect negative correlation between the variables, while a coefficient of +1 indicates a perfect positive correlation. A coefficient of 0 indicates no correlation between the variables. Interpreting the correlation

value depends on the research question and the context of the data. Generally, a correlation coefficient of 0.1 to 0.3 is considered a weak correlation, 0.3 to 0.5 a moderate correlation, and above 0.5 a strong correlation (Field, 2013).

Table 4: ANOVA Results

a. Predict	tors: (Constant)	AssQ,	RelQ,	EasQ,	SecQ
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\mathbf{V}	lodel	Sum o	f	Mean	l l	T' 11	(2022)
1,10001		Squares	df	Square		- 8	Survey (2023)
	Regressi on	67.743	4	16.936	178.5 34		NOVA table presented in Table 4 suggests that s a statistically significant relationship between
1	Residual	36.426	38 4	.095		custor variab	her satisfaction and all the explanatory les, as the p-value is less than 0.05.
	Total	104.170	38 8				

Table 5: Model Regression Coefficients

Model		Unstandardiz	zed Coefficients	Standardized Coefficients			
		\mathbf{B}^{a}	Std. Error	Beta	t	Sig.	
	(Constant)	.823	.149		5.514	.000	
	Security	089	.044	104	2.027	.043	
1	Ease of Use	.565	.041	.616	13.857	.000	
	Reliability	.205	.033	.241	6.234	.000	
	Assurance	.138	.049	.147	2.803	.005	
a. Dependent variable: Customer Satisfaction of Customers of FBN M-Banking Services Quality							

Source: Field Survey (2023)

Based on the information in Table 5, the following conclusions can be drawn: The coefficient analysis indicates the relationships between the dependent variable and the independent variables. Specifically, ease of use, reliability, security, and assurance were found to be statistically significant at the 1% level, which supports the research hypothesis. This suggests that these factors have a significant impact on improving customer satisfaction.

Therefore, an expression for the relationship between the dependent and the independent variables can be obtained in the form:

Y=a+bv+e

Where;

Y= the Dependent Variable representing overall customer satisfaction with FBN m-banking service quality

a = constant, representing the Beta coefficient (B) with value 0.823

b = the slope, which is the standardized Beta coefficient for each study variable

Substituting the variables above, we have:

CS=0.823+0.104V1+0.616V2+0.241V3+0.147V4+e

Where CS= Overall Customer Satisfaction

V1=security

V2=Ease of Use

V3=Reliability

V4=Assurance

Thus, the Regression formula can be written out as: 0.823+0.104V1+0.616V2+0.241V3+0.147V4+e(.149 ×.044×.041×.033×.049

Discussion of Findings

Table 1 gives the results of the reliability test using Cronbach's alpha coefficient. The Cronbach coefficient of alpha is seen to vary from 0 to 1 and values of 0.5 or less usually indicates unsatisfactory internal reliability of data. The reliability data of the service quality dimensions used in the study is confirmed. The Inter correlation between variables of the study shows that there was a positive significant relationship between all the study variables of mobile banking service quality and customer satisfaction. The finding aligns with the empirical work of Ewanlen and Madumere (2019); Goodie-Okio (2022); Owuamanam et al. (2022); Uwalaka and Eze (2020) who found significant correlation of the dimensions of security, reliability, ease of use and assurance with customer satisfaction. The regression analysis R values for the regression model was determined as 0.806. This indicates the explanatory variables; reliability, assurance, security, and ease of use have an effect on the level of customer satisfaction that accounts for 80.6% of satisfaction. Therefore, m-banking service quality dimensions of reliability, assurance, security and ease of use are good explanatory variables of the satisfaction level of customers of FBN m-banking services in Maiduguri.

5. Conclusion and Recommendations

The success of the service sector relies heavily on customer satisfaction, and m-banking has become an essential service for both existing and potential customers. Banks, like all service providers, depend on customer satisfaction to build and maintain loyalty. One of the ways to achieve high customer satisfaction and loyalty is by providing high-quality services. This study aimed to evaluate the level of customer satisfaction with various quality dimensions related to the theoretical model. The major findings are presented below.

The level of customer satisfaction with m-banking services was found to be very high, with a mean value of 4.5 on a 5-point Likert scale. The major predictors for improving m-banking services and customer satisfaction were identified as reliability (with a mean score of 4.46), security (mean score of 4.46), ease of use (mean score of 4.5), and assurance (mean score of 4.52).

According to the findings presented in the report, the adjusted R-square values for the regression model were found to be 0.647. This value indicates that the explanatory variables - reliability, security, ease of use, and assurance - used in the study explain

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approximately 64% of the variation observed in the level of customer satisfaction. The remaining 35% of the variation in customer satisfaction is explained by other variables that were not included in the model. According to the results of the study, there is a positive relationship between security, ease of use, reliability, and assurance and customer satisfaction, which supports the hypothesis. Specifically, an increase in security, ease of use, reliability, and assurance results in an increase in customer satisfaction by 10.4%, 61.6%, 24.1%, and 14.7%, respectively. These findings are statistically significant with a precision level of 1%.

The findings of this study have important implications for both academics and managers of the bank studied. The significant positive relationship between security, ease of use, reliability and assurance service and customer satisfaction highlights the need for banks to pay close attention to these variables as they can impact the profitability and the loyalty of customers. It is recommended that banks invest in understanding the needs of m-banking customers and strive to meet their various needs associated with the quality of services provided by mbanking. Additionally, further research should be conducted to explore factors that affect the remaining 35% of the level of FBN m-banking customer satisfaction. Lastly, there is a need to uncover whether the results apply only in a Maiduguri context considering the impact of extended periods of insecurity which shifted banking services online for easy access by customers.

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